



## Do have a problem with odor from your livestock operation?

- Complaints from neighbors
- Have to close the windows when the wind changes?
- Can the neighbors tell when you're spreading manure?
- Do you store manure where everyone can see it?
- Has DNR gotten complaints about your operation?



*If it looks dirty and smelly people will think it smells*

## What can you do about livestock odors?

Livestock production can smell. The causes vary greatly. It may not be possible to eliminate all odors from livestock operations, but it is possible to manage the odor.

## Here's how controlling odor from livestock can help your operation:

- Fewer complaints from neighbors
- Cleaner, healthier animals
- Sleep with the windows open at night



*Clean dry animals don't smell as bad.*

## Costs and Benefits:

### How much does it cost?

Costs can vary depending on what you need to do. Changing the way you handle manure can be relatively cheap unless you need to buy new equipment. If you are starting a new livestock operation, making the right decisions up front can save money in the long run. Getting odors under control will take time but if you get fewer complaints it will save you time and money in the end.

# Odor Control

## Properly Locate the Facility

The further an animal operation is from its neighbors, the better. Odors from an livestock operation often follow the same path as runoff from rainfall; therefore, an alternative site may avoid odor complaints.

## Keeping the Animals Clean, Dry, and Healthy

Clean, dry, and healthy animals smell less. Dirty, manure-covered animals are not as healthy as clean animals and dust from animals carries odor.

## Minimize Dust

There is a link between dust and smells from livestock operations. Dust particles adsorb and concentrate smells. As the dust particles are carried by the wind, so is the smell. Most farm dust comes from feed, manure and, in the case of poultry, from feathers and litter. Buildings should be cleaned to reduce dust between batches of animals.

## Proper Disposal of Dead Animals

Dead animals stink. Normal mortality from livestock operations *must* be properly handled for both odor control and to prevent the spread of diseases.



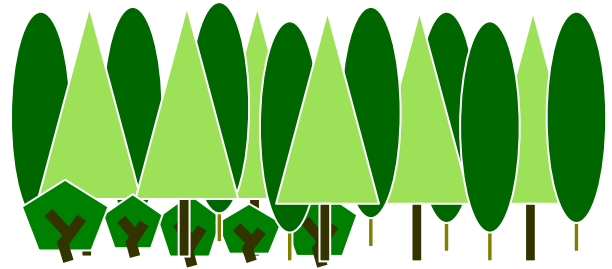
*Dead animals can be a significant source of odors*

## Good Fly and Rodent Control Programs

These programs must be a continuous process on the farm. When feed and manure products are properly stored and handled, these problems are minimized.

## Use Trees

While trees should not grow too close to buildings, wind breaks of trees correctly positioned near a facility create a visual barrier and also provide a large filtration surface for dust and odor control. Trees can adsorb odor gasses and create turbulence that disperses odor. Trees also cool the area around the facility, which can reduce odors.



## Use Covers

Manure storage ponds and tanks can be a source of strong odors. Covers over a manure storage can reduce odors.



*Chopped cornstalks or straw make a cover over a manure pond to reduce odors*



# Odor Control

Synthetic covers, although expensive, can provide for methane gas recovery and utilization. Straw covers are much cheaper and can be effective in reducing odors. The straw must occasionally be replaced. The straw cover is land applied with the stored manure.

## **Manage Lagoons**

When properly sized and managed, a lagoon can be operated with a minimum of disagreeable odor. Don't "shock load" the lagoon. The manure entering the lagoon should be as continuous and frequent as possible. Lagoons with pH of 6.5 or less have more odors.

If you can separate the solids from the manure mixture, this will dilute the liquid manure being treated in the lagoon and cause less odor. The solids can be composted and land applied.

## **Properly Land-apply Manure**

Apply manure only to crops at the recommended rates. Avoid application during windy periods. Pressure on sprinklers used to apply wastewater must be high enough for uniform distribution patterns but not so high that the wastewater drifts. Turning the waste into the soil will reduce odors.



*Throwing manure into the air when spreading can increase odors and complaints from neighbors*

# Help is Available

## CONSERVATION SOLUTIONS FOR YOUR PENNSYLVANIA FARM

### Technical Help Is Available

Your local Natural Resources Conservation Service (NRCS) office has experienced conservationists that can assist you with controlling farm odors. They can also help you develop a Conservation Plan to solve other problems you have identified on your farm.

There is no charge for our assistance. Simply call your local office at the number listed below to set up an appointment and we will come to your farm.

You may also be eligible to receive financial assistance, through a state or federal program. Your NRCS office will explain any programs that are available so you can make the best decision for your operation. All NRCS programs and services are voluntary.



*Helping People—Help the Land*

#### NRCS FIELD OFFICES:

Adams: 717-334-2317 ext 3	Dauphin: 717-921-2380 ext 3	Monroe: 610-625-8392 ext 3
Allegheny: 717-482-4800 ext 3	Delaware: 610-696-0398 ext 3	Montgomery: 610-372-4655 ext 3
Armstrong: 724-545-1022 ext 3	Elk: 814-375-2125 ext 3	Northhampton: 610-625-8392 ext 3
Beaver: 724-482-4800 ext 3	Erie: 814-796-6760 ext 3	Northumberland: 570-286-7114 ext 3
Bedford: 814-623-7900 ext 3	Fayette: 724-437-7971 ext 3	Perry: 717-582-4144 ext 3
Berks: 610-372-4655 ext 3	Forest: 814-226-8160 ext 3	Pike: 570-282-8732 ext 3
Blair: 814-695-6291 ext 3	Franklin: 717-264-8074 ext 3	Potter: 814-274-8166 ext 3
Bradford: 570-265-6969 ext 3	Fulton: 717-485-3812 ext 3	Schuykill: 570-622-1312 ext 3
Bucks: 215-453-9527 ext 3	Greene: 724-627-5821	Snyder: 570-837-0007 ext 3
Butler: 724-482-4800 ext 3	Huntingdon: 814-627-1626 ext 3	Somerset: 814-445-6876 ext 3
Cambria: 814-472-5502 ext 3	Indiana: 727-463-8547 ext 3	Sullivan: 570-836-2490 ext 3
Cameron: 814-375-2125 ext 3	Jefferson: 814-375-2125 ext 3	Susquehanna: 570-278-1011 ext 3
Carbon: 610-625-8392 ext 3	Juniata: 717-436-8953 ext 3	Tioga: 570-724-1726 ext 3
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Clinton: 570-726-3196 ext 3	Lehigh: 610-625-8392 ext 3	Westmoreland: 724-834-3970 ext 3
Columbia: 570-784-1062 ext 3	Luzerne: 570-799-0645 ext 3	Wyoming: 570-836-2490 ext 3
Crawford: 814-724-1852 ext 3	Lycoming: 570-433-3902 ext 3	Venago: 814-437-2473 ext 3
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	Mercer: 724-662-3740 ext 3	
	Mifflin: 717-248-9541 ext 3	